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AF/GAU=3408

Case #1974A(CPA)

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

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Application of: André M. Goineau, et al.
Serial Number: 08/863,113 (CPA)
Filed: May 27, 1997
For: METHOD TO PRODUCE IMPROVED POLYMERIC YARN

Group Art Unit: 3408
Examiner: Worrell, Jr., L.

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APPEAL BRIEF UNDER 37 C.F.R. 1.192

Assistant Commissioner of Patents
Washington, D. C. 20231

Sir:

This Brief is in support of the Appeal filed on August 27, 1998, taken with respect to the Final Action dated August 18, 1998, rejecting Claims 11 - 18.

REAL PARTY IN INTEREST

Milliken Research Corporation

RELATED APPEALS AND INTERFERENCES

None

STATUS OF CLAIMS

Claims 1 - 10 have been cancelled and Claims 11 - 18 have been rejected.

STATUS OF AMENDMENTS

None filed after Final Action.

STATUS OF THE INVENTION

A process to provide a fully oriented single ply industrial yarn from a single ply low molecular weight polyester partially oriented yarn (Page 1, lines 2 - 4) comprising the steps of: providing a bobbin of single ply polyester POY multifilament yarn (Page 1, lines 20 and 21), the single ply yarn to a heater (Page 2, line 2), drawing said single ply in a draw zone (Page 2, line 2) in the range of 1.8 - 2.3 (Page 4, line 7) as it passes over the heater to produce a fully oriented, single ply yarn and supplying the fully oriented single ply yarn directly to a take-up roll without further processing (Page 2, lines 6 - 8).

The process of the claim above wherein said yarn is pretensioned prior to the supply of same to the draw zone (Page 2, line 1).

The process of the claim next above wherein said heater is operating at about a temperature of 210°C (Page 2, line 10).

The method of the claim next above wherein the yarn is pretensioned with a draw ratio of 1.01 (Page 2, line 1).

The process of the main claim above wherein said drawn yarn is supplied to a second draw zone wherein it is relaxed (Page 2, line 12).

The process of the claim next above wherein heat from a heater operating at about 210°C relaxes said drawn yarn (Page 2, lines 10 - 12).

The process of fully orienting a 255 denier, 34 filament low molecular weight polyester yarn (Page 1, line 20) comprising the steps of: supplying a 255 denier, 34 filament POY yarn (Page 1, line 20), heating and drawing said yarn with a draw ratio of 2.093 to produce a fully oriented yarn and taking up the fully oriented yarn (Page 2, line 5).

The process of the claim next above wherein the heater is operated at a temperature of about 210°C (Page 2, line 10).

ISSUE

Whether Claims 11 - 18 are patentable under 35 U.S.C. 112, 1st paragraph and 2nd paragraph and whether Claims 11 and 15 are patentable over Goineau under 35 U.S.C. 103(a) and whether Claims 12 - 14 and 16 - 18 are patentable over Goineau in view of Gorrafa under 35 U.S.C. 103(a).

GROUPING

Claim 11 stands alone, Claims 12 - 14 add an additional step and stand together separate from the other claims, Claims 15 and 16 are directed to a modification of the invention patentable over the preferred embodiment and Claims 17 and 18 are directed to the specific preferred embodiment and are clearly patentable over the broader Claims 11 - 16.

ARGUMENT

The rejection under 35 U.S.C. 112, 1st paragraph is clearly erroneous. The term "single ply" is clearly supported by the recitation on Page 1, line 20 of "a low weight" polyester 255 denier, 34 filament yarn. In textile terminology, if this yarn was two ply, three ply, etc., the yarn would be described as such which obviously it isn't. Therefore, this description describes a single ply yarn.

Relative the term "without further processing", Figures 1 and 2 clearly support the use of this term since the yarn from the rolls 28 and 30 is clearly directed to the take-up roll 36 without further processing since the dancer roll arrangement 34 merely maintains tension in the yarn, but does not process the yarn as indicated by the Examiner.

The rejection of Claims 11 - 18 on 35 U.S.C. 112, 2nd paragraphs does not now apply since Claim 11 has been amended to correct an obvious omission.

Claims 11 and 15 were rejected as unpatentable over Goineau. As noted by the Examiner, Goineau is not drawing (1) a single ply polyester yarn nor is the drawn yarn being (2) directed to a take-up without further processing. The claimed method is only obvious in light of Applicant's specification since Goineau is drawing a three ply yarn which has to be air textured to hold it together. The claimed process and that of Goineau are entirely different, producing different yarn and therefore Goineau does not anticipate the claimed process.

The addition of the reference to Gorrafa to Goineau in the rejection of Claims 12 - 14 and 16 - 18 does not help the rejection since again the drawn yarn is not directed to the take-up without further processing since Gorrafa air textures the yarn after drawing of same. The combination of Goineau and Gorrafa does not anticipate the processing of a single ply low weight polyester by drawing of same in the range of 1.8 - 2.3 to produce a fully oriented yarn which is supplied directly to a take-up roll for use in fabric preparation in a loom or knitting machine.

Therefore, it is respectfully requested that the Examiner be reviewed, Claims 11 - 18 be allowed and the application be remanded for issuance.

Respectfully requested,

September 11, 1998



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APPENDIX

11. A process to provide a fully oriented single ply industrial yarn from a single ply low molecular weight polyester partially oriented yarn comprising the steps of: providing a bobbin of single ply polyester POY multifilament yarn, the single ply yarn to a heater, drawing said single ply in a draw zone in the range of 1.8 - 2.3 as it passes over the heater to produce a fully oriented, single ply yarn and supplying the fully oriented single ply yarn directly to a take-up roll without further processing.

12. The process of Claim 11 wherein said yarn is pretensioned prior to the supply of same to the draw zone.

13. The process of Claim 12 wherein said heater is operating at about a temperature of 210°C.

14. The method of Claim 13 wherein the yarn is pretensioned with a draw ratio of 1.01.

15. The process of Claim 11 wherein said drawn yarn is supplied to a second draw zone wherein it is relaxed.

16. The process of Claim 15 wherein heat from a heater operating at about 210°C relaxes said drawn yarn.

17. The process of fully orienting a 255 denier, 34 filament low molecular weight polyester yarn comprising the steps of: supplying a 255 denier, 34 filament POY yarn, heating and drawing said yarn with a draw ratio of 2.093 to produce a fully oriented yarn and taking up the fully oriented yarn.

18. The process of Claim 17 wherein the heater for said yarn is operated at a temperature of about 210°C.